SUPER NOZZLE CLEANER FOR CEILING FAN BLADE

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ABSTRACT

Ceiling fan is considered the most effective for most types of fans, as they effectively distribute air in the room to make drafts throughout the room. Most of South East Asia especially in Malaysia, ceiling fans will be installed even though some houses use air conditioning as their cooling system. Ceiling type fans are extensively used in dwellings, offices and many other types of buildings to circulate air and thereby reduce the cost of heating during cold weather and air-conditioning during hot weather. Thus, the suitable cleaning tools are needed to clean the ceiling fan blades efficiently. There are three problems faced when cleaning the ceiling fan which are position issues which the consumers need to use ladder to clean the ceiling fan blade especially on the upper part of the blade. Furthermore, consumers faced problems in time consuming and inappropriate design of cleaning tool which most of the dust will falling down to the floor during cleaning activities and due to that, the users need to clean the floor after clean the ceiling fan blades. Solution to the problems, a new design of vacuum nozzle is proposed. From the result obtained, the wind speed and room temperature are increase and decrease respectively after cleaning by the super nozzle vacuum. Based on the result of super nozzle testing, cleaning ceiling fan blades only took less than one minute. The results also show by using super nozzle vacuum cleaner, people will have no difficulty to clean their ceiling fan blades.

ABSTRAK

Kipas siling dianggap paling berkesan untuk kebanyakan jenis kipas, kerana kipas siling secara efektifnya menyebarkan udara di dalam bilik untuk membuat draf di seluruh bilik. Kebanyakan Asia Tenggara terutama di Malaysia, kipas siling akan dipasang walaupun sesetengah rumah menggunakan penyaman udara sebagai sistem penyejukan mereka. Kipas jenis siling digunakan secara meluas di kediaman, pejabat dan banyak jenis bangunan lain untuk menyebarkan udara dan sekali gus mengurangkan kos penyejukan penghawa dingin semasa cuaca panas. Oleh itu, alat pembersihan yang sesuai diperlukan untuk membersihkan bilah kipas siling dengan cekap. Terdapat tiga masalah yang dihadapi pengguna apabila ingin membersihkan kipas siling, iaitu isu kedudukan dimana pengguna perlu menggunakan tangga untuk membersihkan bilah kipas siling terutama pada bahagian atas bilah. Selain itu, pengguna menghadapi masalah peruntukan masa pembersihan dan reka bentuk alat pembersihan yang tidak sesuai kerana sebahagian besar habuk akan jatuh ke lantai semasa aktiviti pembersihan. Disebabkan itu, pengguna perlu membersihkan lantai selepas membersihkan bilah kipas siling. Penyelesaian kepada masalah-masalah yang dihadapi, reka bentuk muncung vakum baru dicadangkan. Daripada hasil yang diperoleh, kelajuan angin meningkat manakal suhu berkurangan selepas bilah kipas siling dibersihkan oleh vakum muncung super. Berdasarkan hasil ujian muncung super, membersihkan bilah kipas siling hanya mengambil masa kurang dari satu minit. Hasilnya juga menunjukkan dengan menggunakan pembersih vakum muncung super, pengguna tidak akan mengalami kesulitan membersihkan bilah kipas siling mereka.